

Path: P:\Projects\Portland Harbor Superfund Site\GIS and CAD\2018 Sediment Probe Study\Figure 4 Proposed Upriver Reach V2.mxd

**Legend**

- New (Post-probing) Proposed Sediment Grab Sample Location (N=30 downtown reach, N=30 upriver)
- Original Proposed Sediment FSP Grab Sample Location (N=30 downtown reach, N=30 upriver)

**Hand Probe Bottom Condition**

- Soft (> 35% fines)

**Percent Fines - Historic RI and 2018 Surface Sediment**

- < 30 %
- 30 - 60 %
- > 60 %

**Percent TOC - Historic RI Surface Sediment**

- < 0.5 %
- 0.5- 2.5 %
- > 2.5 %

- Areas of Soft Sediment Based on 2018 Hand Probing Data
- Excluded Mid-channel Hard Bottom Area
- Analysis Grid

- River Mile Marker
- Capped Area (Existing)

1,000

500

0

1,000

2,000 Feet

N

**Notes:**

- Aerial Imagery provided by ESRI Basemaps 2017.
- Downtown Reach defined as (RM 11.8 -16.6) and the Upriver Reach (RM 16.6 - 28.4).
- RM - river mile.
- Biosonar ® transducer used for mudline bottom hardness screening, followed by 18' long hand push probe, and visual confirmation using a ponar grab at soft sediment areas.
- Survey data in NAD 83 OSPN Intl.feet.
- The approximate lateral distance along the shore used to define the Analysis Grids was approximately 675 ft in the Downtown reach and 950 ft in the Upriver reach.
- Points were generated randomly inside the Hand Probe Thiessen Polygons within each of the Analysis Grids using the Create Random Points tool in ArcGIS 10. The 60 proposed grab locations were divided (30 ea) between the Downtown and the Upriver Reaches.
- 2018 data includes ODEQ 2018 Upriver reach sampling locations and 2018 Geosyntec ponar grabs.

**DRAFT**

**Proposed Downtown/Upriver Reach Surface Grab Locations (revised)**

**RM 18 to 20**

Portland Harbor Superfund Site

PDI Surface Sediment FSP

**AECOM**

Geosyntec consultants

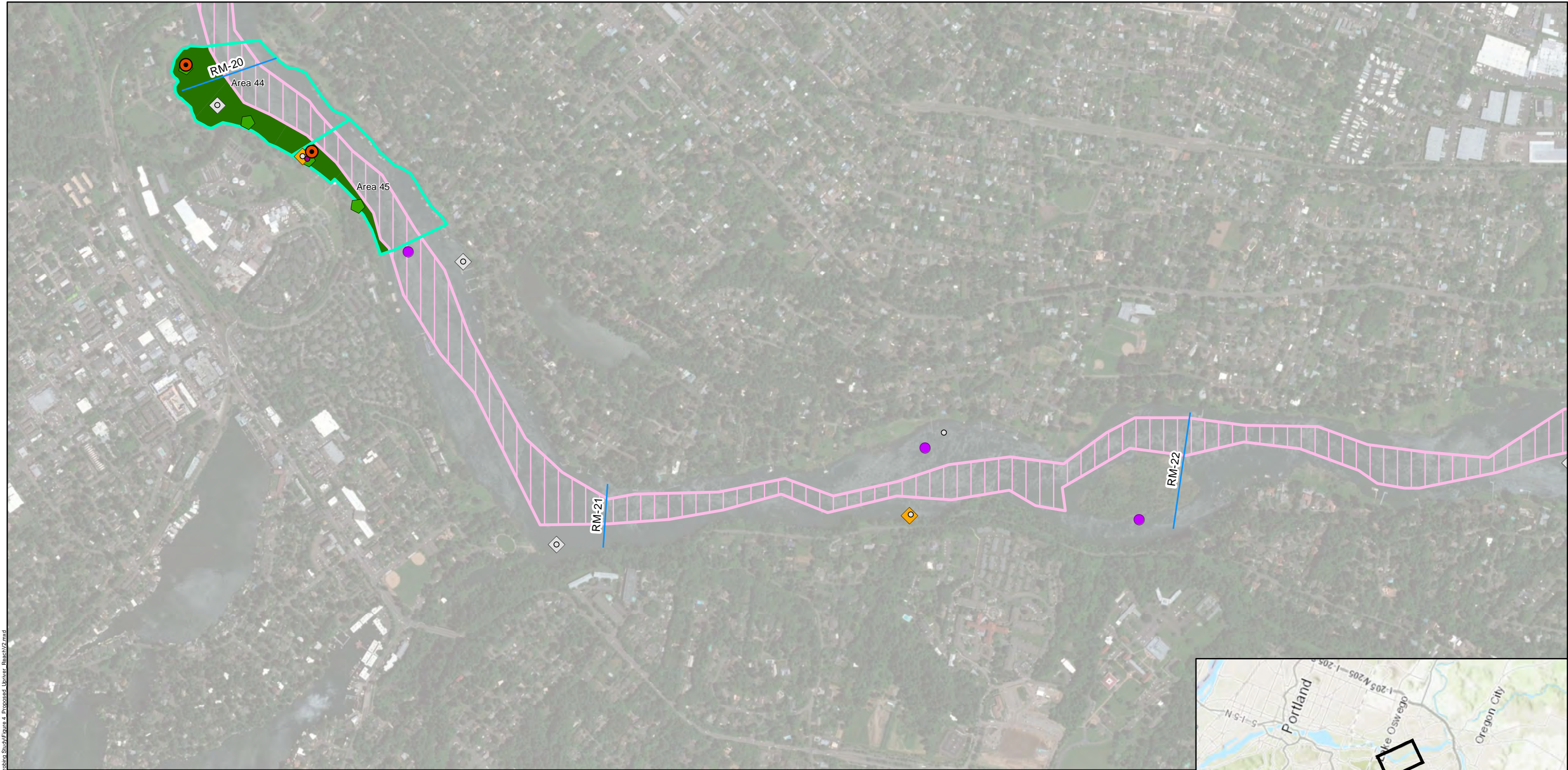
MI/SEA

June 05, 2018

**Figure**

**4d**





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- Hand Probe Bottom Condition**
  - Soft (> 35% fines)
- Percent Fines - Historic RI and 2018 Surface Sediment**
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**Percent TOC - Historic RI Surface Sediment**

- < 0.5 %
- 0.5- 2.5 %
- > 2.5 %
- Areas of Soft Sediment Based on 2018 Hand Probing Data
- Excluded Mid-channel Hard Bottom Area
- Analysis Grid

River Mile Marker

- Capped Area (Existing)

1,000 500 0 1,000 2,000 Feet

Notes:

1. Aerial Imagery provided by ESRI Basemaps 2017.
2. Downtown Reach defined as (RM 11.8 -16.6) and the Upriver Reach (RM 16.6 - 28.4).
3. RM - river mile.
4. Biosonar ® transducer used for mudline bottom hardness screening, followed by 18' long hand push probe, and visual confirmation using a ponar grab at soft sediment areas.
5. Survey data in NAD 83 OSPN Intl.feet.
6. The approximate lateral distance along the shore used to define the Analysis Grids was approximately 675 ft in the Downtown reach and 950 ft in the Upriver reach.
7. Points were generated randomly inside the Hand Probe Thiessen Polygons within each of the Analysis Grids using the Create Random Points tool in ArcGIS 10. The 60 proposed grab locations were divided (30 ea) between the Downtown and the Upriver Reaches.
8. 2018 data includes ODEQ 2018 Upriver reach sampling locations and 2018 Geosyntec ponar grabs.

DRAFT

**Proposed Downtown/Upriver Reach Surface Grab Locations (revised) RM 20 to 22**

Portland Harbor Superfund Site  
PDI Surface Sediment FSP

MI/SEAJune 05, 2018

**Figure 4e**



